

ABSTRACT

A rear projection screen has successively, starting from the projector and moving outwards, a Fresnel lens (6), a surface diffuser (8), a thin support (10) bonded onto a thick substrate (24) provided with an outer anti-glare (26) layer. Light emitted by the projector (2) is collimated by the Fresnel lens (6). It passes through a diffuser (a) having an elongated radiation diagram with a horizontal major axis. This diffuser provides spreading of light in the horizontal plane, so as to provide a wide horizontal angle of view. The light leaving the diffuser is received on a support (10) with cylindrical focusing elements (18) substantially parallel to the major axis of the diffuser radiation diagram and an opaque layer (20) with apertures (22) adapted to allow light focused by the focusing elements to pass. As the focusing elements are parallel to the major axis of the diffuser, practically all the light projected is transmitted. Thanks to the presence of the focusing elements, the display screen has an appropriate vertical angle of view. The presence of the opaque layer ensures optimized contrast in view of the rearward position of the diffuser (8) with respect to the support (10).

20 Figure1.